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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------|------------------|
| 10/695,373   | 10/28/2003  | Ralf Beck            | 00655p1225US         | 5319             |
| 32116  | 7590        | 09/28/2005           | EXAMINER             |                  |
| WOOD, PHILLIPS, KATZ, CLARK & MORTIMER<br>500 W. MADISON STREET<br>SUITE 3800<br>CHICAGO, IL 60661 |             |                      | WALTERS, JOHN DANIEL |                  |
|  |             |                      | ART UNIT             | PAPER NUMBER     |
|  |             |                      | 3618                 |                  |

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/695,373

Applicant(s)

BECK ET AL.

Examiner

John D. Walters

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 5-15 is/are rejected.
- 7) ☒ Claim(s) 6 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

**DETAILED ACTION**

Claims 1 – 15 have been examined.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 – 12 and 13 – 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5, 13, and 15 recite the limitation "said walls" in lines 10, 7 and 5, respectively. There is insufficient antecedent basis for this limitation in the claim. Two vertical walls and two transverse walls are recited prior to "said walls" but it is unclear if the vertical walls, the transverse walls, or all walls are encompassed within "said walls".

Claim 7 recites the limitation "said bulging section" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanemitsu et al. (5,123,695) in view of Murphy (4,485,531). Kanemitsu discloses a front body structure comprising:

- first and second heat exchangers (Fig. 4, items 24 A, 24B, and 51);
- connecting flanges (Fig. 4, items 28 and 52);
- a supporting frame (Fig. 5, item 6) having two vertical and two horizontal walls (Fig. 5);
- said walls containing at least one fastening opening which aligns with said flanges (Fig. 4);
- supports securable to support members on a vehicle (Fig. 4, item 22b);
- cross braces (Fig. 8, items 125 and 127);
- said cross braces being located between said heat exchangers (Fig. 8);
- connectors which connect said fastening openings, which include a head and stem (Fig. 4, item 53 & Fig. 5, item 29).

The connectors of Kanemitsu are standard bolt type fasteners. Murphy, however, discloses a stop pin comprising:

- an expandable end opposite a head (Fig. 1, item 8).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use the stop pin of Murphy within the front body structure of Kanemitsu in

order to provide a quickly attachable, releasable fastening device with which to attach said heat exchangers.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanemitsu et al. (5,123,695) in view of Murphy (4,485,531) as applied to claim 5 above, and further in view of Sewell et al. (4,583,338). Kanemitsu in view of Murphy makes use of solid cross braces. Sewell, however, discloses a door panel construction comprising:

- a brace comprising spaced flat members and flat spacing members (Fig. 2, items 31 and 36).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use the brace construction of Sewell with the front body structure of Kanemitsu in view of Murphy in order to provide a brace which is reduced in weight while retaining a good level of structural strength.

Claims 10 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanemitsu et al. (5,123,695) in view of Murphy (4,485,531) as applied to claim 5 above, and further in view of Heine (6,158,500). Kanemitsu in view of Murphy makes use of standard bolt type fasteners to secure components. Heine, however, discloses a heat exchanger arrangement comprising:

- support hooks and mounts which cooperate to secure components (column 3, lines 34 – 44);

- said hooks and mounts securing said components in the vertical direction (column 3, lines 34 – 44) which would be a non-parallel direction with the upper connectors (Fig. 1, items 5 – 8).

In regards to claim 12, Heine states (column 3, lines 34 – 44) that supplementary positioning webs are included near said hooks and mounts in order to provide a play-free holding of said components. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to exclude these supplementary positioning webs should said securing of said components require allowance for thermal expansion.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the hook and mount attachment method of Heine with the front body structure of Kanemitsu in view of Murphy in order to provide a quick and efficient attachment method to be combined with releasable connectors.

Claims 13 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanemitsu et al. (5,123,695) in view of Murphy (4,485,531) and Heine (6,158,500) as applied to claims 5 and 10 – 12 above, and further in view of Tepas et al. (5,671,803). Kanemitsu in view of Murphy and Heine does not include a fan shroud. Tepas, however, discloses a modular condenser and fans shroud assembly comprising:

- a fan shroud securable to said frame (Figs. 1 and 5);
- which includes an outer edge overlapping said frame walls (Fig. 1, item 44).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include the fan shroud of Tepas in the front body structure of Kanemitsu in

view of Murphy and Heine in order to allow the mounting of a fan which would increase the thermal capacity of said head exchangers.

***Allowable Subject Matter***

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The outwardly bulging sections and inlet and outlet connectors being located therein, in combination with the other elements recited, are not found in the prior art of record.

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The cross braces being oriented and used to direct the flow of air towards the corners of said supporting frame, in combination with the other elements recited, is not found in the prior art of record.

Claims 1 – 4 are allowed.

The following is an examiner's statement of reasons for allowance.

In the examiner's opinion, none of the prior art references, taken individually or collectively, teach or anticipate the following limitations found in the independent claim:

- said vertical walls outwardly extending to create bulging sections;

- said bulging sections receiving projecting components from at least one heat exchanger.

The prior art relating to heat exchangers, and more precisely heat exchanger frames, consists of generally rectangular frames to which heat exchangers are affixed, as shown in the above referenced art. The inlet and outlet projections are found going through the walls of the frame, as in Case (6,470,961), or exterior to said frame, as in Ozawa et al. (2002/0014322). The inclusion of the inlet and outlet projections from a heat exchanger within outward bulges formed by the frame walls is not found within the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Walters whose telephone number is (571) 272-8269. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

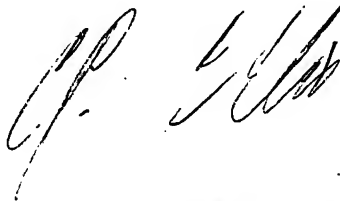
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John D. Walters  
Examiner  
Art Unit 3618

JDW

A handwritten signature, likely of John D. Walters, enclosed in a circle.A handwritten signature, likely of Christopher P. Ellis, consisting of two distinct, stylized signatures.

CHRISTOPHER P. ELLIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600